ARGUMENTS/REMARKS

Claims 1-2, 4-7, and 10-37 are pending. No claims stand allowed.

Claims 3 and 8-9 have been canceled by this amendment, without prejudice.

Claims 1-2, 4-7, and 10-25 have been amended for further prosecution. Support for the amendment may be found, for example, in the description on page 3, the sixth paragraph (paragraph [0026] in the published application), page 4, the last paragraph (paragraph [0032] in the published application), and FIGS. 4-7 of the present application. The amendment also includes minor changes of a clerical nature.

New claims 26-37 have been added by this amendment. Support for the claims may be found, for example, in the description on page 5, the first two paragraphs (paragraphs [0033]-[0034] in the published application), and FIGS. 4-7 of the present application.

No new matter has been introduced by this amendment.

Rejections of Claims under 35 U.S.C. § 102:

Claims 1-3, 9-13 and 18-25 stand rejected as being allegedly anticipated by Vale (U.S. Patent No. 6,359,572), and Claims 16 and 17 stand rejected as being allegedly anticipated by Braspenning et al. (U.S. Patent Application Publication No. 2002/0009211). The rejections are respectfully traversed.

In the Office Action, the Examiner alleges that all of the elements of the claimed invention are disclosed in Vale or Braspenning. In response, the Applicants have amended the claims. The claimed invention uses a set of partial images that form a complete image of a keypad. The partial images are cyclically displayed so as to form a graphical keypad having the complete image, and the user selects a button on the graphical keypad, as recited in claim 1 as amended. Other independent claims 10, 12, 18, 22, and 24, as amended, also include substantially the same distinctive features as claim 1.

1. Differences from Vale:

Vale describes a keyboard to make user input easier, while the present invention is more focused on protecting user input from spyware.

When getting a single character from the user, Vale displays the keyboard 66 on the screen using a <u>single</u> image, contrary to the claimed invention which uses a set of <u>partial</u> images. No reference was made in Vale about using more than one image to display the keyboard 66 on the screen 32 when getting a single character from the user. In Vale, from the time the keyboard 66 is displayed on the screen 32 to the time when the user enters a key 74, only one single keyboard image is displayed on the screen 32. On the other hand, in the present invention, when getting a character from the user, a graphical keypad is generated by displaying two or more partial images cyclically and quickly on the screen so as to "trick" the eye to see a complete keypad image. From the time the keyboard is displayed on the screen to the time when the user enters a key, two or more different partial images are cyclically displayed on the screen. This is apparently different from Vale. In addition, column 14, lines 10-25 of Vale may disclose a keyboard 66 that changes its keys based on the previous key entered by the user. However, the present invention does not have such prediction. The keypad changes independently of previous key.

The above-discussed features of the present invention are recited in the claim 1 as the process steps of: generating a set of partial images that form a complete image of a keypad having a button-to-character assignment, and displaying the partial images in said set cyclically to form a graphical keypad having the complete image, among others. It should be noted that the explanation in the discussion above is to facilitate the Examiner's understanding, and thus the scope of the claims should be construed only by the claim language and recited limitations.

Accordingly, Vale fails to disclose or teach a set of partial images that form a complete image of a keypad having a button-to-character assignment, and displaying the partial images in said set cyclically to form a graphical keypad having the complete image, as recited in claim 1. Other independent claims 10, 12, 14, 18, 11, and 24, as amended, also include substantially the same distinctive features as claim 1.

Therefore, it is respectfully requested that the rejections based on Vale be withdrawn.

2) Differences from Braspenning:

Claims 16 and 17 have been amended to depend from claim 12, and thus include all of the limitations of claim 12. Accordingly, the arguments above are equally applied to claims 16 and 17. In the present invention, a complete image of a keypad is decomposed/partitioned into

two or more partial images, and then the <u>partial images are displayed cyclically</u> on the screen. On the other hand, Braspenning only mentions about combining two images 10, 11 into one image (an enhanced video signal), and then, that combined <u>single</u> image is displayed on the screen 42 (see paragraphs [0042] through [0064] of Braspenning). Thus, Braspenning also fails to disclose or teach displaying the partial images in the set cyclically to form a graphical keypad having the complete image.

Therefore, it is respectfully requested that the rejections based on Braspennning be withdrawn.

In addition, it should be noted that the purpose of decomposing/partitioning a complete image into two or more partial images in the present invention is to make it more difficult for a hacker to steal the character entered by the user, while in Braspenning, the purpose of combining two images into one image is to enhance the video signal to produce a better displayed image.

In paragraph [0053] of Braspennning, visibility of a pixel refers to whether a pixel is blocked by the first image. In the present invention, visible probability of a pixel refers to how frequently that pixel is used when all the characters in a character set are displayed.

Rejections of Claims under 35 U.S.C. § 103:

Claims 4-8 and 14-15 stand rejected under 35 U.S.C. §103(a) as being allegedly unpatentable over Vale in view of Braspenning et al. The rejections are respectfully traversed.

Claims 4 and 14 have been amended to depend from claims 1 and 10, respectively, and thus include all of the limitations of the respective base claims. Accordingly, the arguments above with respect to the §102 rejections are also applied to claims 4 and 14. As discussed above, Vale and Braspenning, whether alone or in combination, fail to teach or suggest displaying a set of partial images cyclically to form a graphical keypad having the complete image.

Furthermore, Vale does not teach using two or more partial images to form a keyboard in the eye when obtaining a single key from the user, and Braspenning does not teach a method to partition or break down a complete image into two or more partial images.

Therefore, it is respectfully requested that the rejections based on Vale and Braspennning be withdrawn.

In addition, Vale does not teach using the visual persistence of the eye to form a keyboard. From the alleged teaching of Vale, an ordinary person skilled in the art will not be motivated to split the keyboard image into two or more partial images and then display these partial images cyclically on the screen so as to trick the eyes of the user into seeing a complete keyboard image using visual persistence. Braspenning is irrelevant as it does not teach generating any partial images that can later be combined in the human eye using visual persistence.

In light of the foregoing, the Applicants submit that the amended claims are novel and nonobvious over the prior arts cited by the Examiner.

Conclusion

Applicant believes that all pending claims are allowable and respectfully requests a Notice of Allowance for this application from the Examiner. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

Respectfully submitted,
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